

Fig. 1

NC30543/05238.00004

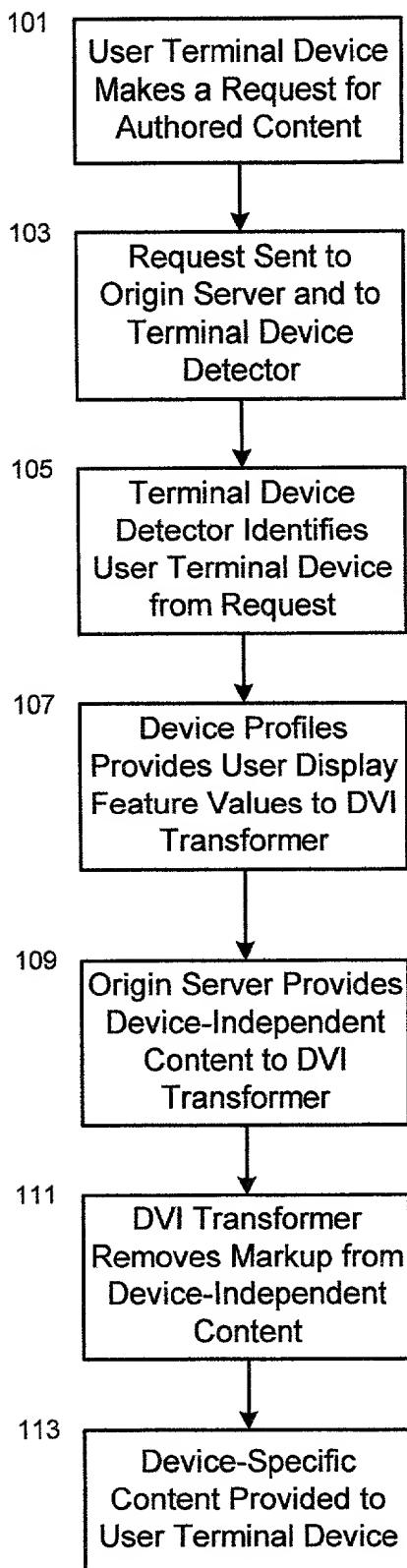


Fig. 2

05288.00004

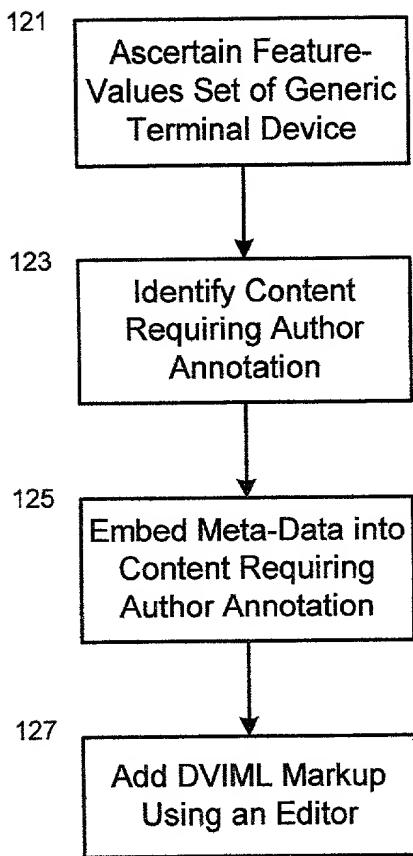


Fig. 3

05288.00004

5 Giant Deep-Sea Creature
10 <area concat="true">
 <segment char="200" >
 Amazes Spanish Scientists
 </segment>
15 <segment char="200">
 Friday November 3 4:35 PM ET MADRID (Reuters)

 <segment>
 <segment char="50">
 Fishermen off northern Spain have captured a giant
20 specimen of a strange, light-emitting, deep sea
 cephalopod, scientists said Friday.
 </segment>
 <segment char="100">
 The octopus-like creature, a taningia danae, weighs in
 at 275 pounds, measures seven feet and is easily the
 biggest of its type discovered. Disappointingly for big
 eaters near the Asturian port of Ribadesella it will not
 end up on their plates, but will be preserved and
 displayed in a marine center whose most impressive
25 cephalopod to date was a mere 140 pound example.
 </segment>
 </area>
 <area concat="false">
30 <segment char="50">
 picture50
 </segment>
 <segment char="200">
 picture200
 </segment>
35 </area>
 </dviml>

Fig. 4

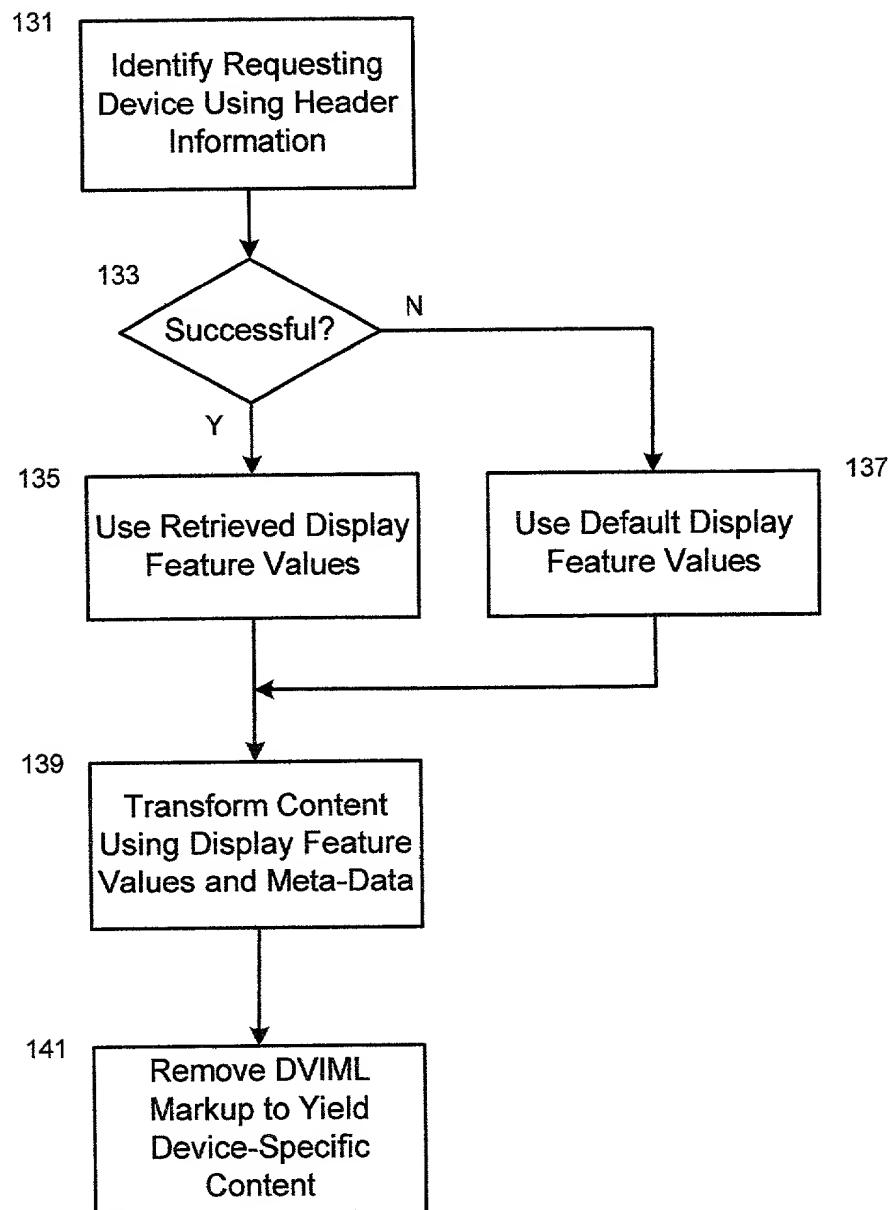


Fig. 5

05288.00004

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE wml PUBLIC "-//WAPFORUM//DTD WML 1.1//EN"
"http://www.wapforum.org/DTD/wml_1.2.xml">
<wml xmlns:nda="http://nda.nokia.com/deviceAdapter">
5   <card>
    <p>
      Giant Deep-Sea Creature
      <nda:area nda:concat="true">
        <nda:segment nda:char="200" >
10        Amazes Spanish Scientists
        </nda:segment>
      </nda:area>
    </p>
    <p>
15      <nda:area nda:concat="true">
        <nda:segment nda:char="200">
          Friday November 3 4:35 PM ET
          MADRID (Reuters) <br/>
        </nda:segment>
        <nda:segment nda:char="50">
20          Fishermen off northern Spain have captured a giant
          specimen of a strange, light-emitting, deep sea
          cephalopod, scientists said Friday.
        </nda:segment>
        <nda:segment nda:char="100">
25          The octopus-like creature, a taningia danae, weighs in
          at 275 pounds, measures seven feet and is easily the
          biggest of its type discovered. Disappointingly for
          big eaters near the Asturian port of Ribadesella it
30          will not end up on their plates, but will be preserved
          and displayed in a marine center whose most impressive
          cephalopod to date was a mere 140 pound example.
        </nda:segment>
      </nda:area>
35      <nda:area nda:concat="false">
        <nda:segment nda:char="50">
          <a href="picture50"> Picture </a>
        </nda:segment>
        <nda:segment nda:char="200">
40          <a href="picture200"> Picture </a>
        </nda:segment>
      </nda:area>
    </p>
45   </card>
</wml>

```

Fig. 6

FEATURES	VALUES
Color Capability	Boolean
Graphics	None, Low, Medium, High
Display Size	
Input System	Keypad, Keyboard, Stylus
Network Bandwidth	2G, 2.5G, 3G
(other Features)	(Values of Feature)

Content-specific Forms of Feature	DVIML Elements	CONTENT EXAMPLE																																
X, Y	<nd4:rigid>																																	
Aspect Ratio * Y, Y	<nd4:shape>	<table border="1"> <tr><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>c</td><td>c</td><td>c</td><td>c</td></tr> <tr><td>c</td><td>c</td><td>c</td><td>c</td></tr> <tr><td>c</td><td>c</td><td>c</td><td>c</td></tr> </table> <table border="1"> <tr><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>a</td><td>a</td><td>a</td><td>a</td></tr> <tr><td>a</td><td>a</td><td>a</td><td>a</td></tr> <tr><td>a</td><td>a</td><td>a</td><td>a</td></tr> </table>	11	12	13	14	c	c	c	c	c	c	c	c	c	c	c	c	21	22	23	24	a	a	a	a	a	a	a	a	a	a	a	a
11	12	13	14																															
c	c	c	c																															
c	c	c	c																															
c	c	c	c																															
21	22	23	24																															
a	a	a	a																															
a	a	a	a																															
a	a	a	a																															
Columns * Char Width , Y	<nd4:columns>	<table border="1"> <tr><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>c</td><td>c</td><td>c</td><td>c</td></tr> <tr><td>c</td><td>c</td><td>c</td><td>c</td></tr> <tr><td>c</td><td>c</td><td>c</td><td>c</td></tr> </table>	11	12	13	14	c	c	c	c	c	c	c	c	c	c	c	c																
11	12	13	14																															
c	c	c	c																															
c	c	c	c																															
c	c	c	c																															
X, Rows*Char Height	<nd4:list>	<ul style="list-style-type: none"> Menu Item 1 Menu Item 2 Menu Item 3 Menu Item 4 Menu Item 5 Menu Item 6 																																
X, <u>Char Count</u> * Columns	<nd4:area>	<p>The feature utilization system proposed in Rosetta has two key ideas. The device is presented as an abstract device which has 'developer-friendly' or 'author-friendly' features, shielding the author from brand names and minor differences between devices.</p> <p>The content is classified into different types which are, on the other hand, 'device-friendly'. These two key ideas are both aimed at making it easier to develop content for the multi-device world of the present day.</p>																																

FIG. 7

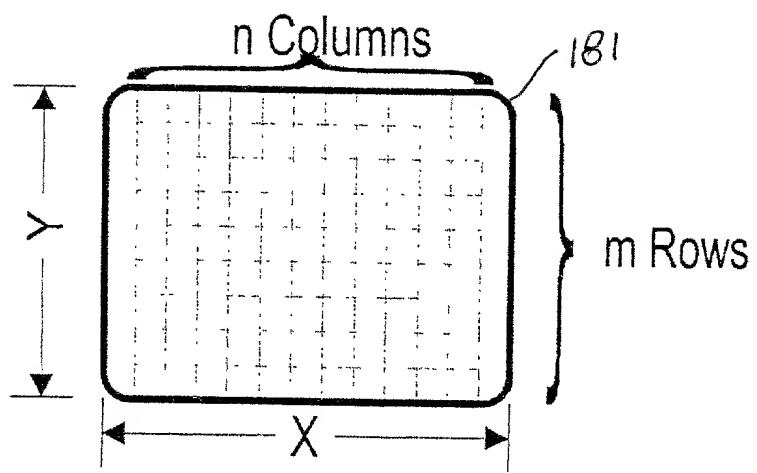


FIG. 8

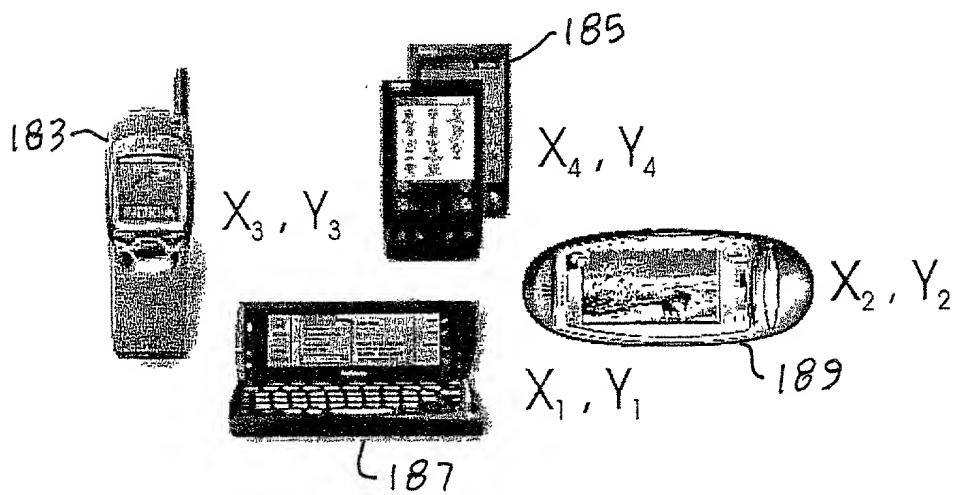


FIG. 9

Display Size DVIML Elements and Values

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Content Characteristic	Relevant Device Display Attribute	DVIML Element	Value for Actual Device	Value for Generic Device
Images (Fixed Form)	X, Y	<rigid>	Zero to infinity and all integers in between (0 to ∞)	Same as for the actual device.
Tables and Vector Graphics (Generated Fixed Form)	ASPECT RATIO	<shape>	Zero to infinity and all numbers in between (0 to ∞)	SQUARE PORTRAIT LANDSCAPE
Columns (Y-Axis Free Form)	COLUMNS	<columns>	Zero to infinity and all integers in between (0 to ∞)	5 10 20+
Lists or Rows (X-Axis Free Form)	ROWS	<list>	Zero to infinity and all integers in between (0 to ∞)	5 10 20+
Text (Bi-axially Free Form)	CHAR COUNT	<area>	Zero to infinity and all integers in between (0 to ∞)	50 100 200+

FIG. 10

Device Profile for Palm Vx (illustrative only)

Feature	Polymorph	Value
Display Size	X, Y	160, 160
	ASPECT RATIO	SQUARE
	COLUMNS	20
	ROWS	20
Graphics	CHAR COUNT	200+
		YES
	Color	NO
	Keyboard Input	NO
Screen Input		YES

FIG. 11

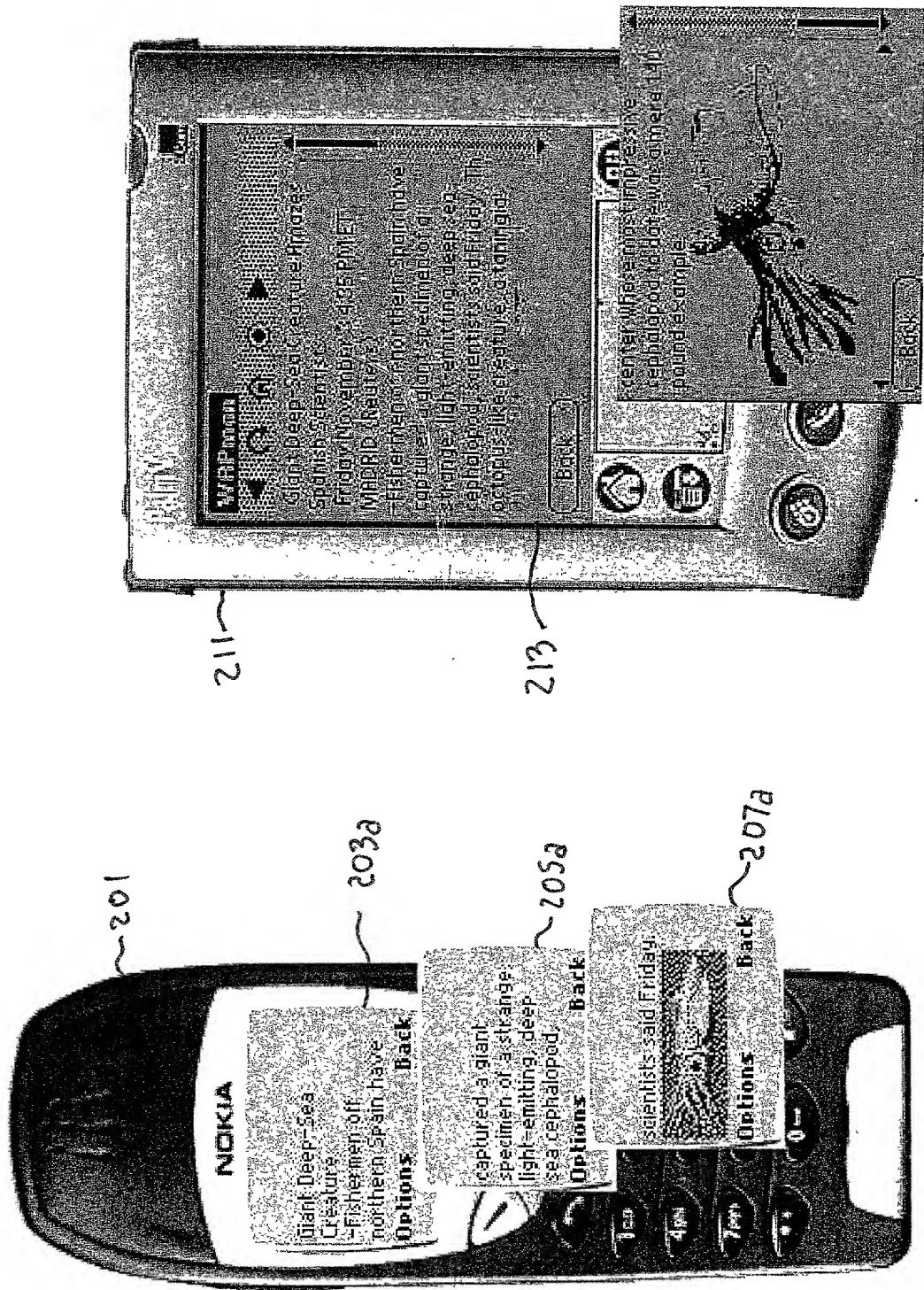


FIG. 12

```

<?xml version="1.0"?>
<!DOCTYPE wml PUBLIC "-//WAPFORUM//DTD WML 1.1//EN"
"http://www.wapforum.org/DTD/wml_1.2.xml">
<wml xmlns:nda="http://nda.nokia.com/deviceAdapter" >
5   <card id="Forecast" newcontext="true" title="Forecast">
     <p align="center">
       <nda:shape>
         <nda:pick nda:aspect_ratio="landscape">
           <table align="CCCCC" columns="5">
10      <tr>
          <td>M</td>
          <td>T</td>
          <td>W</td>
          <td>Th</td>
15        <td>S</td>
      </tr>
      <tr>
        <td></img></td>
20        <td></img></td>
          <td></img></td>
          <td></img></td>
25        <td></img></td>
      </tr>
      <tr>
30        <td>78 F</td>
        <td>89 F</td>
        <td>95 F</td>
        <td>88 F</td>
        <td>79 F</td>
      </tr>
      <tr>
35        <td>68 F</td>
        <td>69 F</td>
        <td>75 F</td>
        <td>68 F</td>
        <td>65 F</td>
      </tr>
40      </table>
    </card>
</wml>

```

Fig. 13A

```

45      </nda:pick>
<nda:pick nda:aspect_ratio="portrait">
  <table align="LCR"  columns="3">
    <tr>
      <td>M </td>
      <td></img></td>
        <td>Hi 78 F<br>Lo 68 F</td>
      </tr>
      <tr>
        <td>T</td>
        <td></img></td>
        <td>Hi 89 F<br>Lo 69 F</td>
      </tr>
      <tr>
        <td>W</td>
        <td></img></td>
        <td>Hi 95 F<br>Lo 75 F</td>
      </tr>
      <tr>
        <td>Th</td>
        <td></img></td>
        <td>Hi 88 F<br>Lo 68 F</td>
      </tr>
      <tr>
        <td>S</td>
        <td></img></td>
        <td>Hi 79 F<br>Lo 65 F</td>
      </tr>
    </table>
    </nda:pick>
  </nda:shape>
</p>
</card>
</wml>

```

Fig. 13B

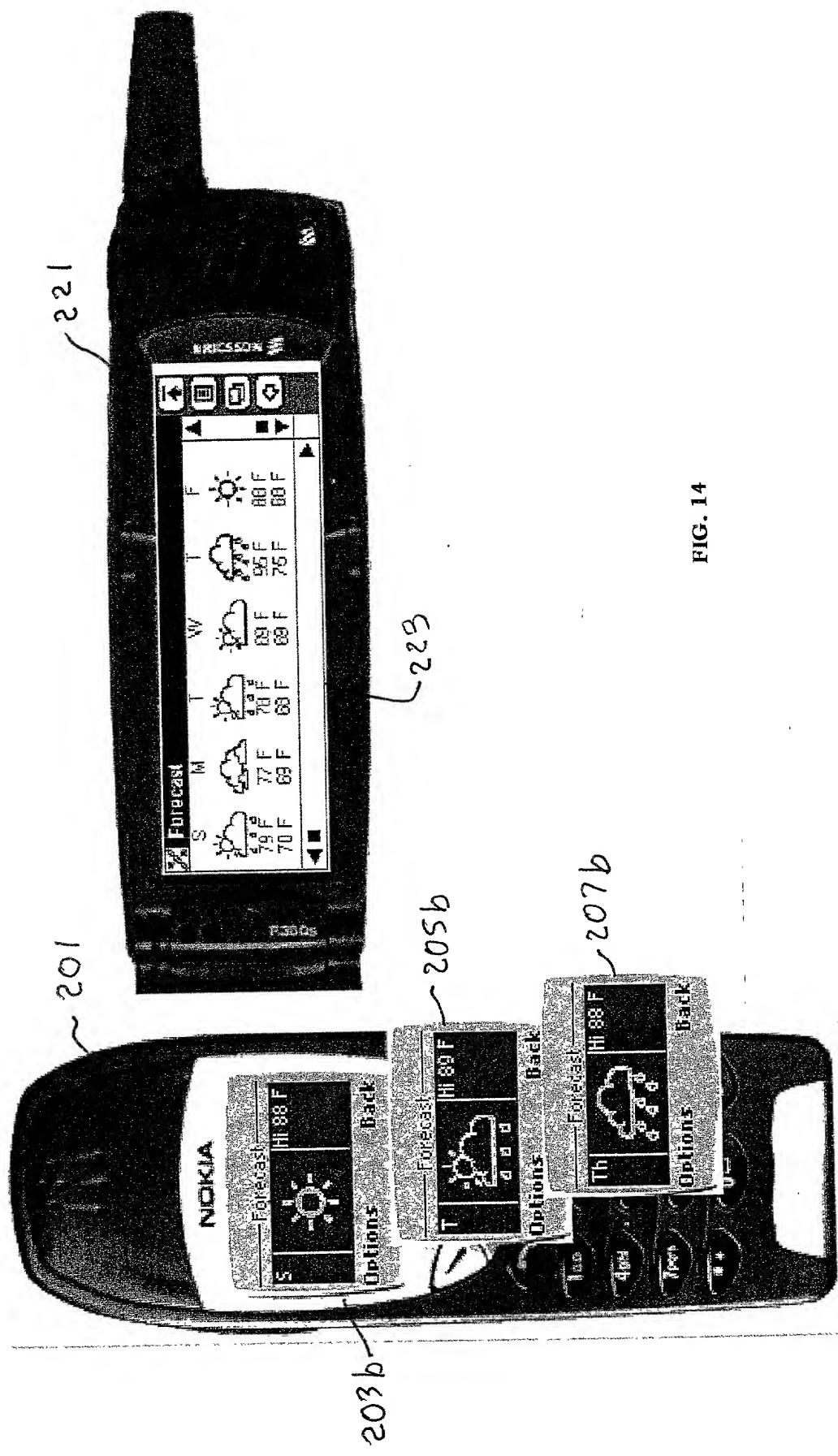


FIG. 14

Consider an object which has four features.

Features = $\alpha \ \beta \ \chi \ \delta$

FIG. 15

Each Feature may take different values, denoted by a different 'font' here.



α	β	χ	δ
A	B	C	D
A	B	C	D
A	B	C	D
A	B	C	D
A	B	C	D
A	B	C	D

FIG. 16

*These 'features'
describe a space,
where all possible
combinations of
values exist.*

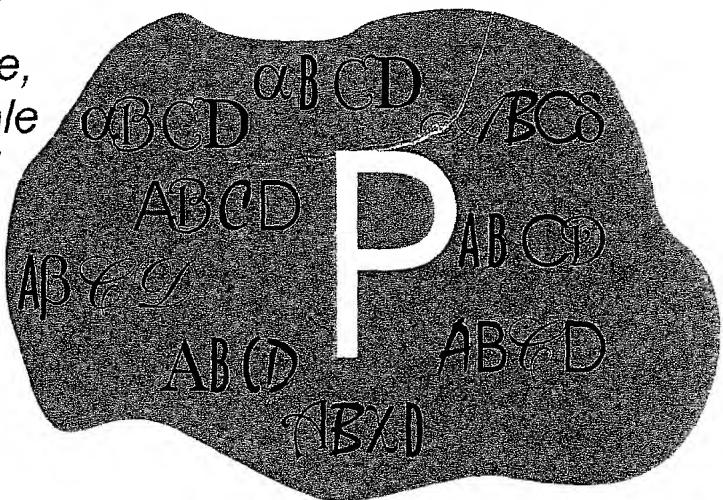


FIG. 17

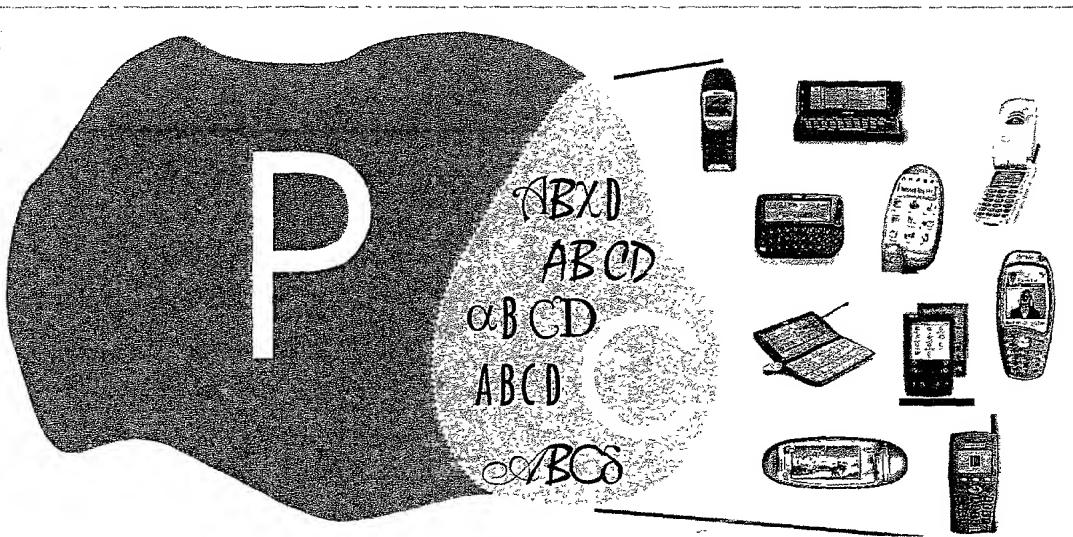


FIG. 18

New Features extend the 'space'. Until we extend our 'alphabet' we do not recognize this space.

New feature, E

FIG. 19

Old features may converge to a single value, and hence no longer be of interest.

Converged feature, D

FIG. 20

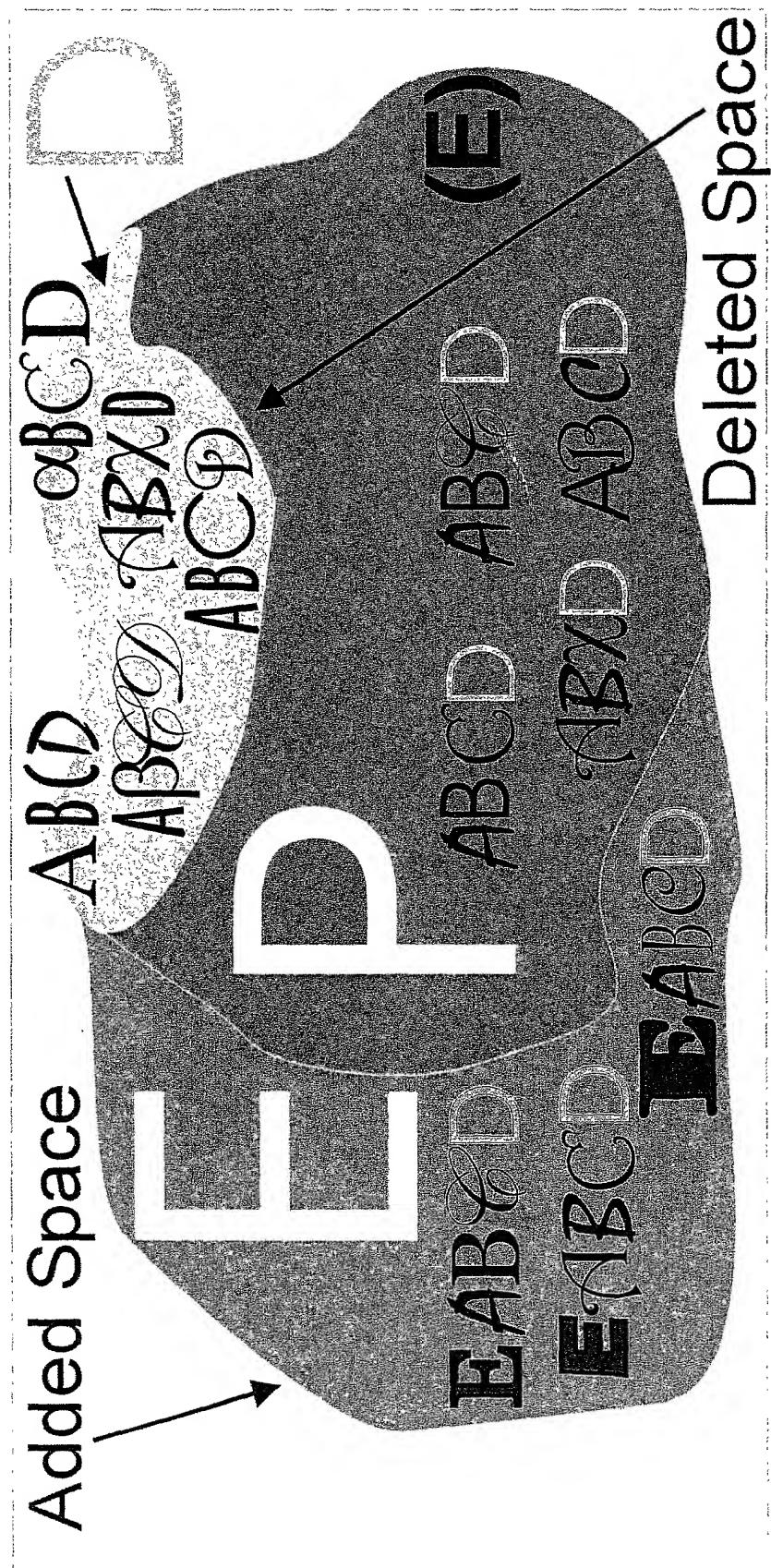


FIG. 21